

AMENDMENTS TO THE CLAIMS:

Please cancel claims 1-44, 47-61, 63-69, 71-77, 79-93 without prejudice or disclaimer. Please amend claims 45 and 62. Please add claims 94 and 95. This listing of the claims will replace all prior versions and listing of claims in the application.

LISTING OF CLAIMS:

1 – 44 Cancelled

45. (Currently amended) A nucleic acid molecule that encodes ~~[[that]]~~ a mutant AAV Rep protein of claim 44 that has increased activity, wherein increased activity of the Rep protein is manifested as an increased titer of virus upon introduction and replication in a host cell of virus encoding the mutant Rep protein compared to the titer of virus upon introduction and replication of a virus containing a wild type Rep gene.

46. (original) A cell, comprising the nucleic acid molecule of claim 45.

47 - 61 cancelled

62. (currently amended) A nucleic acid molecule of claim 45, encoding the protein of claim 12 comprising mutations at one or more of residues, wherein the mutations comprise replacements of the native amino acid residue(s) selected from the group consisting of: T by N at position 350; T by I at position 462; P by R at position 497; P by L at position 497; P by Y at position 497; T by N at position 517; G by D at position 598; G by S at position 598; or V by P at position 600 of AAV-2 or the corresponding residues in other serotypes, wherein:

residue 1 corresponds to residue 1 of the Rep78 protein encoded by nucleotides 321-323 of the AAV-2 genome; and

whereby the activity of the mutant Rep protein is increased as assessed by rAAV production compared to the native Rep protein.

63 – 69 Cancelled

70. (original) A recombinant AAV comprising the nucleic acid molecule of claim 62.

71 – 77 Cancelled

78. (original) A cell, comprising the recombinant AAV of claim 70.

79- 93. Cancelled

94. (New)The nucleic acid of claim 62, wherein the Rep protein is Rep 78, Rep 68, Rep 52 or Rep 40.

Applicant : Manuel Vega, et. al
Serial No. : 10/022,390
Filed : December 17, 2001
Election and Preliminary Amendment

Attorney's Docket No.: 37851-912
(17109-003001)

95. (New) The nucleic acid of claim 62, wherein the AAV is an AAV-1, AAV-2, AAV-3, AAV-3b, AAV-4, AAV-5 or AAV6; wherein the mutation is in the equivalent position in each serotype; and wherein the listed residues are the positions in AAV-2.